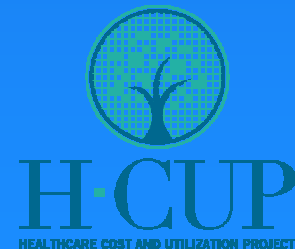




# ICD-9-CM Coding Proposals

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Phlebitis and Thrombophlebitis  
Venous Complications in Pregnancy





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# Phlebitis and Thrombophlebitis

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- Venous thromboses and phlebitis are common complications of prolonged inactivity, chronic disease or central venous catheters.
- Clots are painful and can dislodge and travel to the lungs (pulmonary embolism)
- Increasing use of PICC lines, central catheters, tunnel dialysis catheters and wired cardiac devices has increased incidence of DVT in thorax and upper extremities, typically the axillary, subclavian, brachiocephalic vein



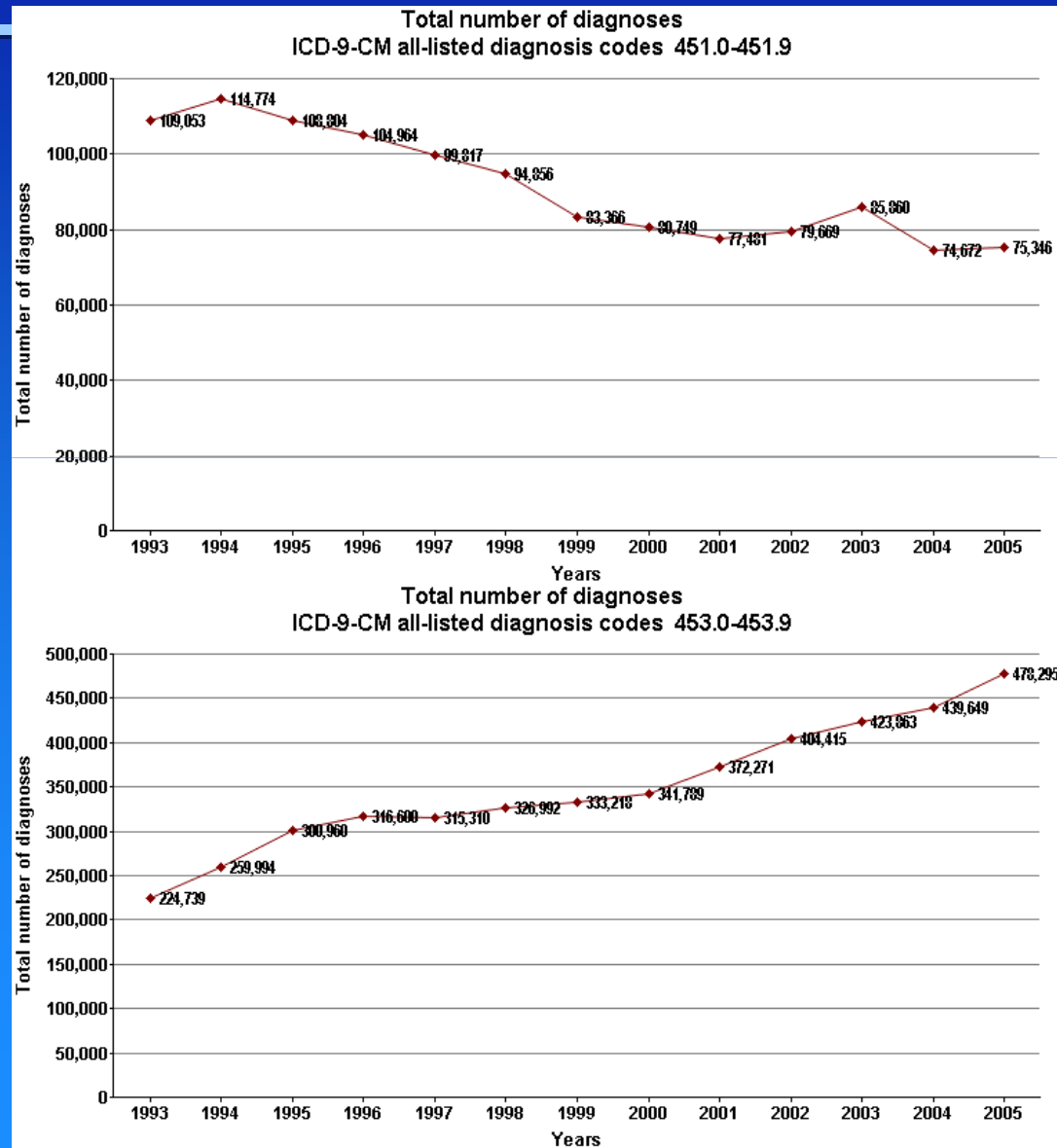
# VTE - Current Coding

- Current Venous Thrombosis Codes:
  - 451.0 - 451.9, Phlebitis and Thrombophlebitis
  - 453.0 - 453.9, Other Venous Embolism and Thrombosis
- Thrombophlebitis is a term that is now rarely used, due to the lack of clinical significance of “phlebitis”
- Coding has followed this trend; “453.x” codes are now much more frequent than “451.x” codes





# Temporal trends in VTE coding





## Despite coding guidance...

- Coders have been instructed (*Coding Clinic* 1Q 1992, 9(1):15-16) that “deep vein thrombosis (DVT) is rarely an acute finding without the associated inflammation leading to thrombophlebitis, and in most cases DVT is synonymous with thrombophlebitis...”
- Coders were reminded (*Coding Clinic* 4Q 2004, 21(4):78-80) to “assign code 451.2, Phlebitis and thrombophlebitis of lower extremities, unspecified” for a patient with “deep vein thrombosis and thrombophlebitis of the lower leg.”



# VTE - Current Coding Superficial vs. Deep

- Under 451, codes are now available to distinguish “phlebitis and thrombophlebitis” involving “superficial vessels of lower extremities” (451.0) and (FY 1994) involving “other sites... superficial veins of upper extremities (451.82),” “deep veins of upper extremities” (451.83), and “of upper extremities, unspecified” (451.84).
- Under 453, no codes to distinguish superficial thromboses or upper extremity thromboses are available (453.8 = “other specified veins”)



# VTE - Current Coding

## Upper vs. Lower Extremity

- FY 2005 update introduced 453.40-453.42 “Venous embolism and thrombosis of deep vessels of lower extremity” which distinguished distal DVT from proximal DVT in leg.
- This change did **not** address upper extremity or upper thoracic clots (no indexing for “thrombosis, vein, upper extremity” or “...arm”).
- In fact, upper extremity clots can not be specifically coded unless the physician uses the terminology of “thrombophlebitis” (but affected vessels are too deep!)





## VTE - Current Coding Acute vs. Subacute/Chronic

- DVT and PE patients are maintained on oral anticoagulation for 3-6 months (or longer). When rehospitalized, these patients are generally coded with 451 or 453, even though condition is no longer acute.
- In FY 1996, V12.51-V12.52 codes were adopted for “personal history” of “venous thrombosis and embolism” or “thrombophlebitis,” but these do not apply to subacute or chronic patients receiving 3-6 months of anticoagulation for known thrombus.



# Evidence from Chart Review

- Three large audits of charts by: a) UC Davis, b) AHRQ, and c) the Joint Commission found that DVT codes (especially 453.8) lack high predictive value (especially when secondary), because 20-40% represent:
  - Upper extremity venous thromboses
  - Superficial venous thromboses
  - Subacute/chronic venous thromboses





# Venous Thromboembolism AHRQ proposal

- Provide specific codes for superficial venous thromboses of either the upper (453.81) or lower (453.7) extremity.
- Provide specific codes to capture DVT in upper extremities and thorax (453.82-453.87)
- Index venous embolism and thrombosis as a complication of central venous catheters to 996.7      Other complications of internal (biological) (synthetic) prosthetic device, implant, and graft
- Create parallel structure between 451 and 453.





# Venous Thromboembolism AHRQ proposal

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- Provide specific codes that identify patients with subacute/chronic DVT who are receiving ongoing treatment for active but subacute or chronic disease (453.5x).
- Provide corresponding codes for “episode of care unspecified (453.6x).
- Provide corresponding codes for PE (415.2x, 415.3x).



# Venous Complications in Pregnancy and Puerperium

- Deep Vein Thrombosis and Septic Pelvic Thrombophlebitis are two distinct entities, but are coded to the same code (671.4).
- Septic Pelvic Thrombophlebitis: an inflammatory condition of infectious etiology that follows delivery. Treated with antibiotics, not heparin or anticoagulants.



# Pregnancy and Puerperium: Current Coding

- 671.2 Superficial thrombophlebitis
  - Thrombophlebitis (superficial)
- 671.3 Deep phlebothrombosis, antepartum
  - Deep-vein thrombosis, antepartum
- 671.4 Deep phlebothrombosis, postpartum
  - Deep-vein thrombosis, postpartum
  - Pelvic thrombophlebitis, postpartum
  - Phlegmasia alba dolens (puerperal)
- 671.5 Other phlebitis and thrombosis
  - Cerebral venous thrombosis
  - Thrombosis of intracranial venous sinus
- 671.8 Other venous complications
  - Hemorrhoids
- 671.9 Unspecified venous complication
  - Phlebitis NOS
  - Thrombosis NOS





# Venous Complications in Pregnancy and Puerperium

- Large Validation study of N. California Kaiser cases found:
  - Most cases coded as 671.31 (“delivered [with] antepartum condition”) had subacute/chronic disease under treatment
  - Approximately 70% of cases coded as 671.4x had septic pelvic thrombophlebitis, not postpartum DVT
  - Cases coded as 671.91 ‘unspecified thrombosis’ rarely had deep-vein thrombosis.



# VTE in Pregnancy AHRQ proposal

- Limit 671.3x and 671.4x to acute episode of care for DVT, removing septic pelvic thrombophlebitis.
- Add new codes 671.6x and 671.7x for subacute/chronic phlebothrombosis (deep vein thrombosis)
- Add new codes to identify most serious manifestations of puerperal infection
  - 670.1 Puerperal endometritis
  - 670.2 Puerperal sepsis
  - 670.3 Puerperal septic thrombophlebitis

